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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,478	06/14/2006	Kazunori Yoshino	09450/0204368-US0	7039

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EXAMINER	
LAZO, THOMAS E	

ART UNIT	PAPER NUMBER
3745	

MAIL DATE	DELIVERY MODE
12/18/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/596,478	YOSHINO, KAZUNORI	
	Examiner	Art Unit	
	Thomas E. Lazo	3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/14/06, 7/18/06, 11/9/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8 rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshino (JP 07-305379) in view of Toyooka et al. (JP 07-042703). Yoshino discloses a control circuit for a construction machine with an open center circuit including center bypass line (figure 5) passing through at least a boom operating valve, a stick operating valve, and a bucket operating valve that are adapted to control hydraulic fluid fed from hydraulic pumps 28 to boom cylinders 24, a stick cylinder 25, and a bucket cylinder 26 and subsequently returned through return lines to a tank, a pressure-compensating flow control valve 45,46 provided on a return line for hydraulic fluid returned from a rod side of the stick cylinder 25 to the tank, a spring 59 for setting a differential pressure, and a pressure compensation deactivation portion 64 that serves to increase set load of the spring 59 in accordance with increase in load pressure applied to the head side of the stick cylinder, and when the load pressure to the head side is a predetermined level or higher, increase the set load of the spring 59 to such a level as to deactivate pressure compensation of flow control, wherein the boom cylinders 24 operate a boom, the stick cylinder 25 operates a stick connected to a distal end of the boom, and the bucket cylinder 26 operates a bucket connected to a distal end of the stick. Yoshino does not disclose a pressure sensor for detecting

pressure of hydraulic fluid fed to a head side of the boom cylinders, a pressure sensor for detecting pressure of hydraulic fluid fed to the rod side of the stick cylinder, a pressure control valve for controlling a portion of the center bypass line that passes through the boom operating valve so as to increase the pressure in accordance with an increase in the pressure detected by the pressure sensor, the portion being downstream from the boom operating valve, a pressure control valve for controlling a portion of the center bypass line that passes through the stick operating valve so as to increase the pressure in accordance with an increase in the pressure detected by the pressure sensor, the portion being downstream from the stick operating valve, wherein each pressure control valve is integrated with an orifice and a relief valve so as to form a negative flow control load pressure compensating valve, the orifice and relief valve serving to retrieve negative flow control pressure from the corresponding center bypass line in order to control pump discharge rate.

Toyooka et al. teaches for a control circuit for a construction machine with an open center circuit including center bypass lines passing through at least a boom operating valve 30 and that there is a pressure sensor 65 for detecting pressure of hydraulic fluid fed to a head side 3b of the boom cylinder, a pressure control valve 62 for controlling a portion of the center bypass line that passes through the boom operating valve 30 so as to increase the pressure in accordance with an increase in the pressure detected by the pressure sensor 65, the portion being downstream from the boom operating valve 30, wherein the pressure control valve 62 is integrated with an orifice 4 and a relief valve 62 so as to form a negative flow control load pressure compensating valve, the orifice 4 and relief valve 62 serving to retrieve negative flow control pressure from the

corresponding center bypass line in order to control pump discharge rate for the purposes of securing good metering characteristics during light loading and heavy loading.

Since Yoshino and Toyooka et al. are both in the same field of endeavor the purpose disclosed by Toyooka et al. would have been recognized in the pertinent art of Yoshino. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the control circuit of Yoshino to include a pressure sensor for detecting pressure of hydraulic fluid fed to a head side of the boom cylinders, a pressure sensor for detecting pressure of hydraulic fluid fed to the rod side of the stick cylinder, a pressure control valve for controlling a portion of the center bypass line that passes through the boom operating valve so as to increase the pressure in accordance with an increase in the pressure detected by the pressure sensor, the portion being downstream from the boom operating valve, a pressure control valve for controlling a portion of the center bypass line that passes through the stick operating valve so as to increase the pressure in accordance with an increase in the pressure detected by the pressure sensor, the portion being downstream from the stick operating valve, wherein each pressure control valve is integrated with an orifice and a relief valve so as to form a negative flow control load pressure compensating valve, the orifice and relief valve serving to retrieve negative flow control pressure from the corresponding center bypass line in order to control pump discharge rate for the purposes of securing good metering characteristics during light loading and heavy loading.

Prior Art

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consists of one patent.

Kim is cited to show a pressure control valve with an orifice and relief valve.

Contact Information

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thomas Lazo whose telephone number is (571) 272-4818. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Edward Look, can be reached on (571) 272-4820. The fax phone number for this Group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Thomas E. Lazo/
Primary Examiner,
Art Unit 3745
December 16, 2009